Claims

What is claimed is:

1. A fluid control valve, comprising:

a body having at least one fluid passage, and an axial bore, a movable member disposed in said bore, an actuator operatively connected to said movable member and being adapted to move said movable member in said axial bore, said body having at least one vent passage opening into said axial bore at an axial location relative to said axial bore between said fluid passage and said actuator, said at least one vent passage being adapted to vent leakage fluid.

2. The fluid control valve of claim 1 wherein said movable member has a valve element portion.

3. The fluid control valve of claim 1 wherein said at least one vent passage includes a plurality of vent passages.

4. The fluid control valve of claim 1 including, an annular portion disposed in a one of said body and said movable member, and in fluid communication with said at least one vent passage.

5. The fluid control valve of claim 1 including, an annular portion disposed in each of said body and said movable member, and in fluid communication with said at least one vent passage.

6. The fluid control valve of claim 1, wherein said actuator has a spacer, said spacer having at least one drain passage.

7. The fluid control valve of claim 1, wherein said body has an end face adjoining said actuator, said end face having at least one drain passage.

8. The fluid control valve of claim 1, wherein said actuator is an electromagnetic device.

9. The fluid control valve of claim 1, wherein said actuator is a piezoelectric device.

10. The fluid control valve of claim 7, wherein said at least one drain passage being arranged substantially radially relative to a centerline of said axial bore.

11. The fluid control valve of claim 7, wherein said at least one drain passage includes a plurality of drain passages.

12. The fluid control valve of claim 7, wherein said at least one drain passage being arranged substantially parallel with respect to said body end face.

13. The fluid control valve of claim 7, wherein said at least one drain passage being arranged substantially inclined with respect to said body end face.

14. The fluid control valve of claim 7, wherein said at least one drain passage having passage walls substantial parallel.

15. The fluid control valve of claim 7, wherein said at least one drain passage having passage walls substantial divergent.

16. The fluid control valve of claim 11, wherein said plurality of drain passages includes at least one drain passage having passage walls

substantially parallel and at least one drain passage having passage walls substantially divergent.

17. A method of reducing fluid forces acting on a movable member movable relative to a body, the method comprising:

moving the movable member in the body with an actuator, and venting leakage fluid from a location between said actuator and a fluid passage.

18. The method of claim 17 further including:

moving a movable member when fluid is at a first temperature, discontinuing moving said movable member, moving said movable member when fluid is at a second temperature, and second temperature is less than first temperature.

19. The method of claim 17 includes venting said leakage fluid through an annular portion.

20. The method of claim 17 further including draining fluid near an end face through a drain passage.